

# SEQUENCE LISTING

<10> Athena Diagnostics

<120> COMPOSITIONS AND METHODS FOR GENETIC ANALYSIS OF POLYCYSTIC KIDNEY DISEASE

<130> 1133/2002

<140> US 10/083,246

<141> 2002-02-26

<160> 168

&lt;170&gt; PatentIn version 3.1

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<212> DNA

<213> Homo sapiens

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<213> Artificial Sequence

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<223> Synthetic primer

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<211> 23

<212> DNA

<213> Artificial Sequence

 $\langle 220 \rangle$ 

<221> misc feature

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<211> 20

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<400> 8  
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<210> 9

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<212> DNA

<213> Artificial Sequence

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<223> Synthetic primer

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<223> Synthetic primer

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<222> (1)..(37)

<223> Synthetic primer

<400> 40  
cgccgcccc gcccgtggaa ctcaatttttt ttaaaga 37

<210> 41

<211> 39

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(39)  
<223> Synthetic primer

<400> 41  
gcggggggcg cgggccggtt tattatacac agtcacacc 39

<210> 42

<211> 32

<212> DNA

<213> Artificial Sequence

<220>  
<221> misc\_feature  
<222> (1)..(32)  
<223> Synthetic primer

<400> 42  
gccccgcgcg cttcctttaa tttttgccct cc 32

<210> 43

<211> 39

<212> DNA

<213> Artificial Sequence

<220>  
<221> misc\_feature  
<222> (1)..(39)  
<223> Synthetic primer

<400> 43  
cgccgcccc gcccgaaac aatgctcatt ttatgtcag 39

<210> 44

<211> 39

<212> DNA

<213> Artificial Sequence



<220>  
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 <222> (1)..(39)  
 <223> Synthetic primer

<400> 44  
 ccgccgcccc cgccgaaacc aagtctttta ttttttctc

39

<210> 45

<211> 39

<212> DNA

<213> Artificial Sequence

<220>  
 <221> misc\_feature  
 <222> (1)..(39)  
 <223> Synthetic primer

<400> 45  
 ccgccgcccc cgccggatga atgttatctg taccctctc

39

<210> 46

<211> 37

<212> DNA

<213> Artificial Sequence

<220>  
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 <223> Synthetic primer

<400> 46  
 ccgccgcccc gcccggaata ttctgccaat tccttta

37

<210> 47

<211> 32

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<212> DNA
<213> Artificial Sequence
<220>
<221> misc_feature
<222> (1)..(32)
<223> Synthetic primer
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<210> 48
<211> 32
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<213> Artificial Sequence
<220>
<221> misc_feature
<222> (1)..(32)
<223> Synthetic primer
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```
<210> 49
<211> 40
<212> DNA
<213> Artificial Sequence
<220>
<221> misc feature
<222> (1)..(40)
<223> Synthetic primer
```

2

<210> 50  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence  
 <220>  
 <221> misc\_feature  
 <222> (1)..(20)  
 <223> Synthetic primer

<400> 50  
 cgtcgctcag cagcaggtcg 20  
 <210> 51  
 <211> 19  
 <212> DNA  
 <213> Artificial Sequence  
 <220>  
 <221> misc\_feature  
 <222> (1)..(19)  
 <223> Synthetic primer

<400> 51  
 cgtcctgctt cccgtcccg 19  
 <210> 52  
 <211> 42  
 <212> DNA  
 <213> Artificial Sequence  
 <220>  
 <221> misc\_feature  
 <222> (1)..(42)  
 <223> Synthetic primer

42

<210> 53

<211> 20

<212> DNA

<213> Artificial Sequence

 $\langle 220 \rangle$ 

```
<221> misc_feature
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<222> (1) . . (20)

<223> Synthetic primer

20

<210> 54

<211> 20

<212> DNA

<213> Artificial Sequence

 $\langle 220 \rangle$ 

<221> misc feature

$$\langle 222 \rangle \quad (1) \cdot \bar{(20)}$$

<223> Synthetic primer

20

<210> 55

&lt;211&gt; 21

<212> DNA

<213> Artificial Sequence

 $\langle 220 \rangle$ 

```
<221> misc_feature
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 $\langle 222 \rangle \quad (1) \dots (21)$ 

<223> Synthetic primer

<400> 55  
atctgggtctc aagcctggaa g 21

<210> 56

<211> 49

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(49)

<223> Synthetic primer

<400> 56  
gccccgcgcc cgtccccgccg cccccgccga gacccttccc accagacct 49

<210> 57

<211> 31

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(31)

<223> Synthetic primer

<400> 57  
cgcccccgcc cgtgagccct gccagtgctc t 31

<210> 58

<211> 41

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(41)  
<223> Synthetic primer

<400> 58  
gcggcccgcc gcccccgccg gagccaggag gagcagaacc c 41

<210> 59

<211> 22

<212> DNA

<213> Artificial Sequence

<220>  
<221> misc\_feature  
<222> (1)..(22)  
<223> Synthetic primer

<400> 59  
cagagggaca ggcaggcaaa gg 22

<210> 60

<211> 28

<212> DNA

<213> Artificial Sequence

<220>  
<221> misc\_feature  
<222> (1)..(28)  
<223> Synthetic primer

<400> 60  
gcccccgccg cccagccctc cagtgcct 28

<210> 61

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(20)

<223> Synthetic primer

<400> 61

atcgctatgt gctgcctggg

20

<210> 62

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(18)

<223> Synthetic primer

<400> 62

ccgaggtgga tgccgctg

18

<210> 63

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(21)

<223> Synthetic primer

<400> 63

gaaggggagt gggcagcaga c

21

<210> 64

<211> 21  
 <212> DNA  
 <213> Artificial Sequence  
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 <221> misc\_feature  
 <222> (1)..(21)  
 <223> Synthetic primer

<400> 64  
 cactgaccgt tgacaccctc g 21

<210> 65  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence  
 <220>  
 <221> misc\_feature  
 <222> (1)..(21)  
 <223> Synthetic primer

<400> 65  
 tgccccagtg cttcagagat c 21

<210> 66  
 <211> 19  
 <212> DNA  
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 <221> misc\_feature  
 <222> (1)..(19)  
 <223> Synthetic primer

<400> 66  
 ggagtgccct gagccccct 19



<210> 67  
<211> 19  
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<221> misc\_feature  
<222> (1)..(19)  
<223> Synthetic primer

<400> 67  
cccctaacca cagccagcg 19  
<210> 68  
<211> 21  
<212> DNA  
<213> Artificial Sequence  
<220>  
<221> misc\_feature  
<222> (1)..(21)  
<223> Synthetic primer

<400> 68  
tctgttcgtc ctggtgtcct g 21  
<210> 69  
<211> 21  
<212> DNA  
<213> Artificial Sequence  
<220>  
<221> misc\_feature  
<222> (1)..(21)  
<223> Synthetic primer

<400> 69  
gcaggagggc aggttgtaga a

21

<210> 70

<211> 40

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(40)

<223> Synthetic primer

<400> 70  
gcggcccgcc gcccccgccg ggtaggggga gtctgggctt

40

<210> 71

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(17)

<223> Synthetic primer

<400> 71  
gaggccaccc cgagtcc

17

<210> 72

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(20)

<223> Synthetic primer

```
<400> 72
gttgggcattc tctgacgggtg
20

<210> 73

<211> 35

<212> DNA

<213> Artificial Sequence

<220>
<221> misc_feature
<222> (1)..(35)
<223> Synthetic primer
```

```
<400> 73
cgccgcccc gcccggaag gtggcctgag gagat
35

<210> 74

<211> 37

<212> DNA

<213> Artificial Sequence

<220>
<221> misc_feature
<222> (1)..(37)
<223> Synthetic primer
```

```
<400> 74
gcggcccgcc gcccccgccg ggggtccacg ggccatg
<210> 75
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
```



<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(21)

<223> Synthetic primer

<400> 78

gtggtggacg tgggtggtgga a

21

<210> 79

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(21)

<223> Synthetic primer

<400> 79

ggctgctgcc ctactggga a

21

<210> 80

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(21)

<223> Synthetic primer

<400> 80

taagggcaga gtcctccaca g

21

<210> 81

<211> 22  
 <212> DNA  
 <213> Artificial Sequence  
 <220>  
 <221> misc\_feature  
 <222> (1)..(22)  
 <223> Synthetic primer

<400> 81  
 ccacccccgc ccacctactg ag 22

<210> 82  
 <211> 40  
 <212> DNA  
 <213> Artificial Sequence  
 <220>  
 <221> misc\_feature  
 <222> (1)..(40)  
 <223> Synthetic primer

<400> 82  
 gcggcccgcc gcccccgccg tggagggagg gacgccaatc 40

<210> 83  
 <211> 19  
 <212> DNA  
 <213> Artificial Sequence  
 <220>  
 <221> misc\_feature  
 <222> (1)..(19)  
 <223> Synthetic primer

<400> 83  
 gaggctgggg ctgggacaa 19

<210> 84  
 <211> 18  
 <212> DNA .  
 <213> Artificial Sequence  
 <220>  
 <221> misc\_feature  
 <222> (1)..(18)  
 <223> Synthetic primer

<400> 84  
 cccggttcac tcactgcg 18  
 <210> 85  
 <211> 30  
 <212> DNA  
 <213> Artificial Sequence  
 <220>  
 <221> misc\_feature  
 <222> (1)..(30)  
 <223> Synthetic primer

<400> 85  
 cccccgcccg ccgtgctcag agcctgaaag 30  
 <210> 86  
 <211> 38  
 <212> DNA  
 <213> Artificial Sequence  
 <220>  
 <221> misc\_feature  
 <222> (1)..(38)  
 <223> Synthetic primer

36

18



<400> 89  
acgtgatgtt gtcgcccg 18

<210> 90

<211> 32

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(32)

<223> Synthetic primer

<400> 90  
gccccgcgcg gggcgcccc gtggtggtca gc 32

<210> 91

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(18)

<223> Synthetic primer

<400> 91  
caggctgcgt ggggatgc 18

<210> 92

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

```
<221> misc_feature
<222> (1)..(18)
<223> Synthetic primer
```

<400> 92  
ctggagggtgc tgcgcgtt

18

<210> 93

<211> 30

<212> DNA

<213> Artificial Sequence

 $\langle 220 \rangle$ 

<221> misc feature

 $\langle 222 \rangle \quad (1) \dots (30)$ 

<223> Synthetic primer

```
<400> 93
cgcccccgcc cgctggctcc acgcagatgc
```

30

<210> 94

<211> 18

<212> DNA

<213> Artificial Sequence

 $\langle 220 \rangle$ 

```
<221> misc feature
```

<222> (1) . . (18)

<223> Synthetic primer

<400> 94  
cgtgaacagg gcgcata

18

<210> 95

<211> 31

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(31)

<223> Synthetic primer

<400> 95

cccccgcccg gcagcagaga tggtgttgga c

31

<210> 96

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(36)

<223> Synthetic primer

<400> 96

ccgcgcggcc cgccgccagg ctcttatctt gtgaca

36

<210> 97

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(21)

<223> Synthetic primer

<400> 97

tgaagtcacc tgtgctgttg t

21

<210> 98





<400> 103  
cgctgcccag catgttgg 18

<210> 104

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(24)

<223> Synthetic primer

<400> 104  
ggccggcagc ggcaaaggct tctc 24

<210> 105

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(19)

<223> Synthetic primer

<400> 105  
gcccagcacc agctcacat 19

<210> 106

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(21)

<223> Synthetic primer







<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(21)

<223> Synthetic primer

<400> 112

ttggaggccc acgttgacct g

21

<210> 113

<211> 31

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(31)

<223> Synthetic primer

<400> 113

cccccgcccg catgggtgtg gacgggtgag g

31

<210> 114

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(20)

<223> Synthetic primer

<400> 114

taaaactgga tggggctctc

20

<210> 115

<211> 18  
 <212> DNA  
 <213> Artificial Sequence  
 <220>  
 <221> misc\_feature  
 <222> (1)..(18)  
 <223> Synthetic primer

<400> 115  
 ggccctccacc agcactaa 18  
 <210> 116  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence  
 <220>  
 <221> misc\_feature  
 <222> (1)..(20)  
 <223> Synthetic primer

<400> 116  
 ggggtccccca gtccttccag 20  
 <210> 117  
 <211> 17  
 <212> DNA  
 <213> Artificial Sequence  
 <220>  
 <221> misc\_feature  
 <222> (1)..(17)  
 <223> Synthetic primer

<400> 117  
 tccccagccc gccacaa 17

<210> 118  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence  
 <220>  
 <221> misc\_feature  
 <222> (1)..(20)  
 <223> Synthetic primer

<400> 118  
 gccccctcac cacccttct 20  
 <210> 119  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence  
 <220>  
 <221> misc\_feature  
 <222> (1)..(21)  
 <223> Synthetic primer

<400> 119  
 tcccgctgct cccccacgc a 21  
 <210> 120  
 <211> 18  
 <212> DNA  
 <213> Artificial Sequence  
 <220>  
 <221> misc\_feature  
 <222> (1)..(18)  
 <223> Synthetic primer

<400> 120  
gatgccgtgg ggaccgtc 18

<210> 121  
<211> 20  
<212> DNA  
<213> Artificial Sequence  
<220>  
<221> misc\_feature  
<222> (1)..(20)  
<223> Synthetic primer

<400> 121  
gtgagcaggt ggcagtctcg 20

<210> 122  
<211> 21  
<212> DNA  
<213> Artificial Sequence  
<220>  
<221> misc\_feature  
<222> (1)..(21)  
<223> Synthetic primer

<400> 122  
ccacccctc tgctcgtagg t 21

<210> 123  
<211> 19  
<212> DNA  
<213> Artificial Sequence  
<220>  
<221> misc\_feature  
<222> (1)..(19)  
<223> Synthetic primer

<400> 123  
ggtcccaagc acgcatgca 19

<210> 124

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(22)

<223> Synthetic primer

<400> 124  
tgccggcctc ctgcgctgct ga 22

<210> 125

<211> 29

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(29)

<223> Synthetic primer

<400> 125  
gcgggcaggg tgagcaggtg gggccatcc 29

<210> 126

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature  
<222> (1)..(26)  
<223> Synthetic primer

<400> 126  
gaggctgtgg ggggccagtc aagtgg

26

<210> 127

<211> 25

<212> DNA

<213> Artificial Sequence

<220>  
<221> misc\_feature  
<222> (1)..(25)  
<223> Synthetic primer

<400> 127  
agggaggcag aggaaagggc cgaac

25

<210> 128

<211> 29

<212> DNA

<213> Artificial Sequence

<220>  
<221> misc\_feature  
<222> (1)..(29)  
<223> Synthetic primer

<400> 128  
cgtcccgccct gcactgacct cacgcatgt

29

<210> 129

<211> 41

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(41)

<223> Synthetic primer

<400> 129

cgccccgccg cccccgccg gccaaaggga aagggattgg a

41

<210> 130

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(21)

<223> Synthetic primer

<400> 130

ccgcggagcc tgctgtgcta t

21

<210> 131

<211> 39

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(39)

<223> Synthetic primer

<400> 131

ccgccccccc cgcgcgcttg gtggagacgg tgtagttgc

39

<210> 132

<211> 21  
 <212> DNA  
 <213> Artificial Sequence  
 <220>  
 <221> misc\_feature  
 <222> (1)..(21)  
 <223> Synthetic primer

<400> 132  
 tccaatccct ttcccttttg c 21

<210> 133  
 <211> 22  
 <212> DNA  
 <213> Artificial Sequence  
 <220>  
 <221> misc\_feature  
 <222> (1)..(22)  
 <223> Synthetic primer

<400> 133  
 cagcagccca tgaaacagaa ag 22

<210> 134  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence  
 <220>  
 <221> misc\_feature  
 <222> (1)..(21)  
 <223> Synthetic primer

<400> 134  
 tatgctttca ggcccggtggc a 21



[illegible]

```
<210> 135
<211> 23
<212> DNA
<213> Artificial Sequence
<220>
<221> misc_feature
<222> (1)..(23)
<223> Synthetic primer
```

```
<400> 135
agagcccata cccgggtccag tcc
23

<210> 136

<211> 23

<212> DNA

<213> Artificial Sequence

<220>
<221> misc_feature
<222> (1)..(23)
<223> Synthetic primer
```

```

<400> 136
ggactggacc gggatatgggc tct
23

<210> 137

<211> 31

<212> DNA

<213> Artificial Sequence

<220>
<221> misc_feature
<222> (1)..(31)
<223> Synthetic primer

```



[illegible]

<400> 140  
caggccaaag ctgagatgac ttg 23

<210> 141

<211> 20

<212> DNA

<213> Artificial Sequence

 $\langle 220 \rangle$ 

```
<221> misc_feature
```

$$\langle 222 \rangle \quad (1) \cdot \bar{\cdot} (20)$$

<223> Synthetic primer

```
<400> 141
agaggcgcag gagggaggtc 20
```

<210> 142

<211> 18

<212> DNA

<213> Artificial Sequence

 $\langle 220 \rangle$ 

<221> misc feature

<222> (1) . . (18)

<223> Synthetic primer

```
<400> 142
ccctctgccc ccgcattg 18
```

<210> 143

<211> 21

<212> DNA

<213> Artificial Sequence

 $\langle 220 \rangle$

*(Musical notation for Example 8)*

```
<221> misc_feature
<222> (1)..(21)
<223> Synthetic primer
```

```
<400> 143
aagcgcaaaa gggctgcgtc g                                     21
```

<210> 144

<211> 22

<212> DNA

<213> Artificial Sequence

 $\langle 220 \rangle$ 

<221> misc feature

$$\langle 222 \rangle \quad (1) \cdot \bar{\cdot} (22)$$

<223> Synthetic primer

```
<400> 144
ggccctccct gccttctagg cg                                     22
```

<210> 145

<211> 20

<212> DNA

<213> Artificial Sequence

 $\langle 220 \rangle$ 

<221> misc feature

$$\langle 222 \rangle \quad (1) \quad \bar{1} \quad (20)$$

<223> Synthetic primer

```
<400> 145
ccgtgctgtg tggaggagag 20
```

<210> 146

<211> 21

<212> DNA



<211> 20  
 <212> DNA  
 <213> Artificial Sequence  
 <220>  
 <221> misc\_feature  
 <222> (1)..(20)  
 <223> Synthetic primer

<400> 149  
 aggaccccca gccagccca 20

<210> 150  
 <211> 18  
 <212> DNA  
 <213> Artificial Sequence  
 <220>  
 <221> misc\_feature  
 <222> (1)..(18)  
 <223> Synthetic primer

<400> 150  
 cttggcgag cttggact 18

<210> 151  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence  
 <220>  
 <221> misc\_feature  
 <222> (1)..(20)  
 <223> Synthetic primer

<400> 151  
 acaccagca aggacagca 20

<210> 152  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence  
 <220>  
 <221> misc\_feature  
 <222> (1)..(20)  
 <223> Synthetic primer

<400> 152  
 tgtgacacat cccctggtac 20  
 <210> 153  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence  
 <220>  
 <221> misc\_feature  
 <222> (1)..(20)  
 <223> Synthetic primer

<400> 153  
 gcaaggggtga gcttcagagc 20  
 <210> 154  
 <211> 51  
 <212> DNA  
 <213> Artificial Sequence  
 <220>  
 <221> misc\_feature  
 <222> (1)..(51)  
 <223> Synthetic primer

<400> 154  
gccccgcgcc cgtcccgccg cccccgccg accctatgcc tctgtacct c 51

<210> 155

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(18)

<223> Synthetic primer

<400> 155  
cccctcctct ggcaatcc 18

<210> 156

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(20)

<223> Synthetic primer

<400> 156  
cctgccggga gcacgacgag 20

<210> 157

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(20)

<223> Synthetic primer



<400> 157  
ctgggctggg gcacggcggg 20

<210> 158

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

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